

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013832**Date Inspected:** 23-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girders (OBG)**Summary of Items Observed:**

Quality Assurance inspector (QA) Michael Foerder was at the American Bridge/Flour (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

1. OBG Field Splice 2E/3E Face C2 Repairs (Outside)
2. OBG Field Splice 2E/3E Face B1 (Inside)
3. OBG Field Splice 3E/4E Face E1 and E2 (Outside)
4. OBG Field Splice 3E/4E Face F1 (Outside-UT)

**Field Splice 2E/3E Face C2 (Outside)**

The QA inspector periodically observed ABF welding personnel Rick Clayborn performing shielded metal arc welding (SMAW) in the 4G position for the repairs of rejectable indications previously discovered by ultrasonic testing (UT). QC inspector Bernard Docena was noted to be present in order to monitor the progression and ensure the work is within contract specifications. At the start of the shift the QA inspector noted 2 of the 6 areas were completed. The welding was noted to be progressing in accordance with the established WPS noted as ABF-WPS-D1.5-1000 Repair with the QC inspector verifying that proper pre heat and interpass temperature was within specifications. The welding amps were measured to be 128 and the welder was noted to be performing proper interpass cleaning as the work progressed. The work continued throughout the morning shift with 4 of the 6 areas completed and appeared to be within general conformance with the contract documents.

**Field Splice 2E/3E Face B1 (Inside)**

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# WELDING INSPECTION REPORT

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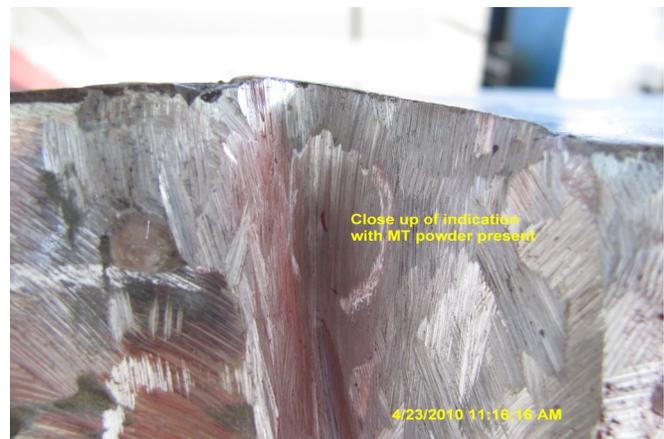
The QA inspector noted ABF welding personnel James Zhen performing shielded metal arc welding (SMAW) and grinding/blending operations at the weld designated B1. The welder is in the process of performing this work for areas identified previously by the QC department for minor welding/blending. QC inspector Mike Johnson was noted to be present in order to monitor the progress and adherence to the contract documents and the established WPS. The work progressed throughout the balance of the QA inspector's shift and appeared to be progressing in general conformance with the contract documents.

## Field Splice 3E/4E Face E (Second side-Outside)

The QA inspector noted and periodically observed ABF welding operators Rory Hogan and Jeremy Dolan performing the grinding operations for face E on the second side (Outside). The welding operators continued setting the equipment up and periodically performing the operation throughout the shift. The work was not completed on this date or turned over to QC for verification to the QA inspector's knowledge but appeared to be progressing in general conformance with the contract documents.

## Field Splice 3E/4E Face F1 (Outside-UT)

The QA inspector periodically observed QC inspector Jessie Cayabyab performing ultrasonic testing (UT) on this date for this location. The QC inspector was noted to be utilizing a zero degree transducer for lamination examination and a 70 degree transducer and wedge combination for shear wave examination. The QC inspector relayed to the QA inspector no rejectable indications were discovered at the time of review with the exception of 1 localized area close in proximity to the intersection between the edge plate and the side plate. See digital photo included in the body of this report for clarification. The QA inspector reviewed this area visually as a portion of the weld metal has been previously removed by grinding. The QA inspector performed an initial UT review of approximately 10% of the total length for this weld with no rejectable indications noted at the time of review and relayed to QA inspectors Rick Bettencourt and Dan Reyes the repair would need to be reviewed after completion. A TL-6027 will be generated for this item for this date.



## Summary of Conversations:

As noted above in summary of conversations.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916)813-3677, who represents the Office of Structural Materials for your project.

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# WELDING INSPECTION REPORT

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<b>Inspected By:</b>	Foerder, Mike	Quality Assurance Inspector
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<b>Reviewed By:</b>	Levell, Bill	QA Reviewer
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